



# **CITY OF WILLMAR**

**February 2007-2011**

## **Storm Water Pollution Prevention Program**

**(Effective implementation date to be set upon final approval from MPCA)**

**As Required By:**

**GENERAL PERMIT NO. MNR 040000**

**Authorization to Discharge Storm Water**

**Associated with Municipal Separate Storm Sewer Systems (MS4)**

**Under the National Pollutant Discharge Elimination  
System/State Disposal System Permit Requirement**

## NPDES PHASE II – PERMIT REQUIREMENTS

In response to requirements of the Federal Clean Water Act, the Environmental Protection Agency (EPA) has established “Phase II” regulations that will require public owners or operators of small “municipal separate storm sewer systems” (MS4s) such as Willmar to obtain permits in order to legally discharge storm water to our lakes and streams. This permit program has been delegated to the Minnesota Pollution Control Agency (MPCA) to develop and enforce permit provisions. MPCA’s goal for the Phase II MS4 permit program is **“to restore and maintain the chemical, physical, and biological integrity of waters of the state through management and treatment of urban storm water runoff.”**

MPCA has mandated that the City of Willmar must obtain an MS4 permit by February 15, 2007. This permit is to include a “Storm Water Pollution Prevention Program” (SWPPP) that describes how Willmar intends to manage storm water within its corporate boundaries.

The SWPPP must include 34\* minimum Best Management Practices (BMPs) that the City of Willmar must implement for each of six minimum control measures as follows:

1. Public education and outreach
2. Public participation
3. Illicit discharge detection and elimination
4. Construction site storm water runoff control
5. Post-Construction storm water management in new development and redevelopment
6. Pollution prevention/good housekeeping for municipal operations

\*Willmar is actually submitting 37 BMP’s as part of its First SWPPP Application.

Willmar’s SWPPP must also include 18 additional BMPs to address the requirements of the Lower Minnesota River Basin Total Maximum Daily Load (TMDL) Implementation Plan. This Implementation Plan was recently approved by the United States Environmental Protection Agency to lower phosphorous levels reaching the Minnesota River.

**Minimum Control Measure 1: PUBLIC EDUCATION AND OUTREACH**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
1a-1	Distribute Education Materials	<b>V.G.1.a</b>
1b-1	Implement an Education Program	<b>V.G.1.b</b>
1c-1	Education Program: Public Education and Outreach	<b>V.G.1.c</b>
1c-2	Education Program: Public Participation	<b>V.G.1.c</b>
1c-3	Education Program: Illicit Discharge Detection and Elimination	<b>V.G.1.c</b>
1c-4	Education Program: Construction Site Run-off Control	<b>V.G.1.c</b>
1c-5	Education Program: Post-Construction Storm Water Management in New Development and Redevelopment	<b>V.G.1.c</b>
1c-6	Education Program: Pollution Prevention/Good Housekeeping for Municipal Operations	<b>V.G.1.c</b>
1d-1	Coordination of Education Program	<b>V.G.1.d</b>
1e-1	Annual Public Meeting	<b>V.G.1.e</b>
1f-1	Preparation of MS4 Permit Application*	<b>*Not Required by Permit</b>

**Minimum Control Measure 2: PUBLIC PARTICIPATION/INVOLVEMENT**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
2a-1	Comply with Public Notice Requirements	<b>V.G.2.a</b>
2b-1	Solicit Public Input and Opinion on Adequacy of the SWPPP	<b>V.G.2.b</b>
2c-1	Consider Public Input	<b>V.G.2.c</b>

**Minimum Control Measure 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
3a-1	Storm Sewer System Map	<b>V.G.3.a</b>
3b-1	Regulatory Control Program	<b>V.G.3.b</b>
3c-1	Illicit Discharge Detection and Elimination Plan	<b>V.G.3.c</b>
3d-1	Public and Employee Illicit Discharge Information Program	<b>V.G.3.d</b>
3e-1	Identification of Non Storm Water Discharge and Flows	<b>V.G.3.e</b>

**Minimum Control Measure 4: CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
4a-1	Ordinance or Other Regulatory Mechanism	<b>V.G.4.a</b>
4b-1	Construction Site Implementation of Erosion and Sediment Control BMPs	<b>V.G.4.b</b>
4c-1	Waste Controls for Construction Site Operators	<b>V.G.4.c</b>
4d-1	Procedure for Site Plan Review	<b>V.G.4.d</b>
4e-1	Establishment of Procedures for Site Inspections and Enforcement	<b>V.G.4.e</b>
4f-1	Establishment of Procedures for Site Inspections and Enforcement	<b>V.G.4.f</b>

**Minimum Control Measure 5: POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
5a-1	Development and Implementation of Structural and/or Non-structural BMPs	<b>V.G.5.a</b>
5b-1	Regulatory Mechanism to Address Post Construction Runoff from New Development and Redevelopment	<b>V.G.5.b</b>
5c-1	Long-term Operation and Maintenance of BMPs	<b>V.G.5.c</b>

**Minimum Control Measure 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
6a-1	Municipal Operations and Maintenance Program	<b>V.G.6.a</b>
6a-2	Street Sweeping*	<b>*Not Required by Permit</b>
6b-1	Operate and Maintain Storm Water System so as to Reduce the Discharge of Pollutants to the Maximum Extent Practicable	<b>V.G.6.B.1</b>
6b-2	Annual Inspection of All Structural Pollution Control Devices	<b>V.G.6.b.2</b>
6b-3	Inspection of a Minimum 20 percent of the MS4 Outfalls, Sediment Basins and Ponds Each Year of a Rotating Basis	<b>V.G.6.b.3</b>
6b-4	Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas	<b>V.G.6.b.4</b>
6b-5	Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Maintenance Measures are Necessary and the Implementation of the Corrective Measures	<b>V.G.6.b.5</b>
6b-6	Record Reporting and Retention of all Inspections and Responses to the Inspections	<b>V.G.6.b.6</b>
6b-7	Evaluation of the Inspection Frequency	<b>V.G.6.b.7</b>

## **BMPs INSTRUCTIONS**

For each of the Best Management Practices (BMPs) associated with each Minimum Control Measure the required BMP Summary Sheets must be completed. The completion of all of the associated BMP Summary Sheets for the BMPs listed above is mandatory for a complete application. To aid in review and comment by the public, you must use the numbers listed in the key above and the BMP Titles which are consistent with the MS4 Permit language. This summary is simply an overview of the BMP and does not contain all of the details associated with implementation. Be sure to include a reference to the specific location of detailed information on which the summary sheet is based in your Storm Water Pollution Prevention Program (SWPPP).

### **1. BMP Description**

Summarize the major components of this BMP and how you plan to implement them. Define the following:

- BMP program components
- Plans for program implementation
- Target audience
- Types of materials to be distributed
- Methods of distribution or communication
- Include the exact locations (page numbers) of detailed information in the SWPPP

### **2. Measurable Goals**

Define the milestones that are to be accomplished by the implementation of this BMP. Establish baseline from which you will measure effectiveness, how the measurements are to be made, and how the success will be defined and quantified.

### **3. Timeline/Implementation Schedule**

Provide specific dates that milestones identified as measurable goals are to be met. Include when materials will be created, printed, and distributed. The schedule should also outline dates when measurable goals will be evaluated to determine program effectiveness.

### **4. Specific Components and Notes for this MCM**

Include any additional notes relevant to the specific purpose of each BMP and how the BMPs for the minimum control measure have been modified from past practice based on experience and monitoring.

### **5. Responsible Party for this BMP**

Indicate who specifically is responsible for the implementation and monitoring of this BMP. This should be the individual who is actively involved with the BMP and not simply a city official who is signing the application for permit coverage.

### **Additional Instructions for BMPs 1c-1 through 1c-6:**

The Minnesota MS4 General Permit requires that "For each minimum control measure, your education program must identify: 1) The audience or audiences involved; 2) Educational goals for each audience in terms of increased awareness, increased understanding, acquired skills,

and/or desired changes in behavior; 3) Activities used to reach educational goals for each audience; 4) Activity implementation plans, including responsible department charge, entities responsible for given activities, and schedules; and 5) Available performance measures that can be used to determine successes in reaching educational goals.”

**1. Audience(s) Involved**

Define the specific audience or audiences that will be the target of the education program for the minimum control measure addressed in this BMP.

**2. Educational Goals for Each Audience**

Define the educational goal of the BMP and how they are associated with each audience.

**3. Activities Used to Reach Educational Goals**

Outline the specific activities that will be in place to ensure that the educational goals are met.

**4. Activity Implementation Plan**

Define how you will put each specified activity into place. Also indicate the specific timeline that you will follow. Include major milestones and the dates by which each will be implemented.

**5. Performance Measures**

Outline how you will measure the success of this BMP. Determine a baseline from which the measurements will be made. Briefly describe how you will qualify the success of an increase in education.

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1a-1

<b>*BMP Title:</b> DISTRIBUTE EDUCATIONAL MATERIALS
<b>*BMP Description:</b> Create or obtain written education material that introduces Storm Water Management to the general public including homeowners, commercial & industrial entities, builders association, realtors, students and others. Distribute information using following media formats: <ul style="list-style-type: none"><li>• Website</li><li>• PowerPoint Presentations</li><li>• Pamphlets</li><li>• Annual Meeting Storm Water Pollution Prevention Program (SWPPP)</li></ul>
<b>*Measurable Goals:</b> For each distribution method, record the audience type(s), # or recipients, topics covered and number of pamphlets distributed
<b>*Timeline/implementation Schedule:</b> <ul style="list-style-type: none"><li>• Post MS4 Storm Water Pollution Prevention Plan to City Website – Done</li><li>• Update status of MPCA review and approval to City on City website - 2007</li><li>• Add six minimum control measures and descriptions to City Website by 2008</li><li>• Prepare and distribute pamphlets or other brochures by 2009</li><li>• Expand on six minimum control measures and program status by 2010</li></ul>
<b>*Specific Components and Notes:</b> Permit Reference – V.G.1.a
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit



## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1b-1

<b>*BMP Title:</b> IMPLEMENT AN EDUCATION PROGRAM
<b>*BMP Description:</b>  Develop education collaboration with Ridgewater and Willmar Public School System. Brainstorm educational material dissemination with instructors and City. Consider utilizing Ridgewater to create Storm Water Pamphlet which emphasizes a minimum control measure topic and its applicability to Willmar or other general storm water theme.  Work with local Soil and Water Conservation District, Hawk Creek Watershed District, and other groups to develop educational material emphasizing how urban storm inter-relates to the entire watershed.  Implement specific educational programs as described in 1a-1.  See other BMP Summary Sheets for MCM# 1 (Public Education and Outreach).
<b>*Measurable Goals:</b>  See 1a-1  Track hours spent developing education collaboration  Implement education program by Year 2009.  The City will assess developing a survey to determine residents awareness to storm water issues
<b>*Timeline/implementation Schedule:</b>  See 1a-1
<b>*Specific Components and Notes:</b>  Permit Reference – V.G.1.b
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

MS4 NAME CITY OF WILLMAR

Minimum Control Measure: 1-Public Education and Outreach

Unique BMP Identification Number: 1c-1

<b>*BMP Title:</b> Education program - PUBLIC EDUCATION AND OUTREACH
<b>*Audience(s) Involved:</b>  The general public
<b>*Educational Goals for Each Audience:</b>  Help educate the public on why their current actions result in problems for our waters and what we can do to correct or modify our behavior.  Increase awareness about the impacts of storm water discharge on Willmar's receiving waters and identify steps that individuals can take to reduce pollutants in storm water.  Raise the level of awareness to Federal, State and Local regulations and ordinances and remind people that regulations are created to better deal with issues that are already occurring.
<b>*Activities Used to Reach Education Goals:</b>  Continue to distribute verbal, written, or visual messages to City of Willmar website, pamphlets and presentations.  Provide website links to Federal, State and Local regulations and ordinances
<b>*Activity Implementation Plan:</b>  Implement the activities noted above and in the other BMP Summary Sheets for MCM 1 (Public Education and Outreach) on an ongoing basis throughout the term of the permit.  Post Storm Water Education Material to Website in 2008; continually update throughout term of the permit
<b>*Performance Measures:</b>  For each distribution method, record the audience type(s), # or recipients, and topics covered.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1c-2

<b>*BMP Title:</b> Education Program - PUBLIC PARTICIPATION
<b>*Audience(s) Involved:</b>  The general public including commercial and industrial locations, civic groups, real estate personnel, and anyone that benefits from living, working or interacting with the City of Willmar
<b>*Educational Goals for Each Audience:</b>  Increase awareness about the impacts of storm water discharge on Willmar's receiving waters and identify steps that individuals can take to reduce pollutants in storm water  Engage individuals, groups and entities in actively implementing storm water control measures. Some examples of storm water control measures may include annual waterway clean-up activities, storm drain stenciling, or facilitating annual yard clean-up days.  Actively solicit opportunities in the area to provide presentations on storm water education materials. Solicit public input and participation to improve MS4 program.  Encourage residential and non-residential system users to provide input on the City's SWPPP
<b>*Activities Used to Reach Education Goals:</b>  Continue to distribute verbal, written, or visual messages to residential and non-residential users including City of Willmar website, City newsletter, pamphlets and presentations.
<b>*Activity Implementation Plan:</b>  Target implementation of public participation in parallel with website development – Year 2008 Implement the activities noted above and in the other BMP Summary Sheets for MCM 1 (Public Education and Outreach) on an ongoing basis throughout the term of the permit
<b>*Performance Measures:</b>  For each distribution method, record the audience type(s), # or recipients, and topics covered.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1c-3

<b>*BMP Title:</b> Education Program - ILLICIT DISCHARGE DETECTION AND ELIMINATION
<b>*Audience(s) Involved:</b>  The general public including commercial and industrial locations, civic groups, real estate personnel, and anyone that benefits from living, working or interacting with the City of Willmar
<b>*Educational Goals for Each Audience:</b>  The first step will be to educate the public on what is an illicit discharge. Next, Highlight the impacts of illicit discharges to our environment Discuss proper disposal of household wastes including pet litter, Show people how to recognize illicit discharge behavior; and how to report their findings to the City.
<b>*Activities Used to Reach Education Goals:</b>  Continue to distribute verbal, written, or visual messages to residential and non-residential users including City of Willmar website, City newsletter, pamphlets and presentations.
<b>*Activity Implementation Plan:</b>  Implement the activities noted above and in the other BMP Summary Sheets for MCM 1 (Public Education and Outreach) on an ongoing basis throughout the term of the permit. Targeted completion of some education material by end of Year 2008 See BMP #3 for additional "Illicit Discharge Detection and Elimination implementation dates.
<b>*Performance Measures:</b>  Completion of one or more IDDE education materials for each involved audiences.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1c-4

<b>*BMP Title:</b> Education Program - CONSTRUCTION SITE RUNOFF CONTROL
<b>*Audience(s) Involved:</b>  City staff, developers, builders, and property owners seeking to build or develop property in the City of Willmar.
<b>*Educational Goals for Each Audience:</b> To understand the importance of erosion and sediment control (ESC), the effect of sediment on water quality and aquatic habitat and how to recognize and report potentially inadequate ESC measures.
<b>*Activities Used to Reach Education Goals:</b>  Annual builders meeting presentations, continue to distribute verbal, written, or visual messages to residential and non-residential users including City of Willmar website, City newsletter, pamphlets and presentations.
<b>*Activity Implementation Plan:</b>  Implement the activities noted above and in the other BMP Summary Sheets for MCM 1 (Public Education and Outreach) on an ongoing basis throughout the term of the permit. Target completion of education material for developers and builders by end of Year 2008 Target completion of remaining education materials though-out term of permit.
<b>*Performance Measures:</b>  Completion of one or more IDDE education materials for each involved audiences.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1c-5

<b>*BMP Title:</b> Education Program - POST-CONSTRUCTION STORM WATER MANAGEMENT NEW DEVELOPMENT AND REDEVELOPMENT
<b>*Audience(s) Involved:</b> City staff, developers, builders, and property owners seeking to build or develop property in the City of Willmar.
<b>*Educational Goals for Each Audience:</b> Make audience aware of Federal, State, and Local regulations for control of runoff from construction sites.  Inform and educate audience on permanent BMPs used for long term erosion control and water quality protection.
<b>*Activities Used to Reach Education Goals:</b> Annual builders meeting presentations, continue to distribute verbal, written, or visual messages to residential and non-residential users including City of Willmar website, City newsletter, pamphlets and presentations.
<b>*Activity Implementation Plan:</b> Implement the activities noted above and in the other BMP Summary Sheets for MCM 1 (Public Education and Outreach) on an ongoing basis throughout the term of the permit.  Target completion of education material for developers, builders & homeowners by end of Year 2008.  Complete remaining education materials through-out term of permit.
<b>*Performance Measures:</b> For each distribution method, record the: audience type(s), # of recipients, and topics covered.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1c-6

<b>*BMP Title:</b> Education Program - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS
<b>*Audience(s) Involved:</b> City staff in these Departments: Public Works, Planning & Development (bldg. inspections), Airport, Wastewater Treatment, Community Education and Recreation, Municipal Utilities, Police, Fire
<b>*Educational Goals for Each Audience:</b> Make audience aware of Federal, State, and Local regulations and recommended Best Management Practices (BMPs) for pollution prevention & good housekeeping for municipal operations.  Recognize activities and materials associated with each Department's work responsibilities with the potential to pollute storm water and identify alternative practices or products that can reduce water quality impacts.  Identify the nearest storm water conveyance features and receiving water that are most likely to be affected by departmental practices.
<b>*Activities Used to Reach Education Goals:</b>  Work directly with department staff to discuss their existing operations and identify activities with the potential to impact water quality. Activities may include: material storage and management, turf and landscape management, fleet maintenance, street sweeping, snow/ice response, maintenance of public storm water conveyance and water quality facilities, and aviation and emergency response clean-up.
<b>*Activity Implementation Plan:</b> Complete SWPPP Audit for Airport & Compost Site – Industrial Activity Sites.
<b>*Performance Measures:</b> Completion of Airport & Compost Site Audits. Document recognizable activities which have the potential to pollute storm water and develop an implementation plan.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1d-1

<b>*BMP Title:</b> COORDINATION OF EDUCATION PROGRAM
<b>*BMP Description:</b> <p>Oversight and coordination of the various programs comprising the Public Education and Outreach effort will be necessary to avoid duplication of effort, ensure compliance with the SWPPP goals, monitor and record the measurable goals and provide accountability to the City Council and residents of Willmar.</p> <p>The City of Willmar is committed to active participation in water resource opportunities. This participation includes being a member of the Lower MN River Dissolved Oxygen TMDL, the Lower MN River Turbidity TMDL, the MN Cities Stormwater Coalition, the Minnesota Environmental Science and Economic Review Board (MESERB), the Grass Lake Project and the Foot Lake Association.</p> <p>Initial discussions and agreements with have been established for the Grass Lake Project which includes the Board of Water and Soil Resources, Kandiyohi County, the local Soil and Water Conservation Board and the City.</p> <p>In Year 2006, the City and the Foot Lake Association along with the County helped to restore a waterway on the north side of Foot Lake. In Year 2007, a similar partnership is being formed to restore a waterway in Berquist Park.</p> <p>Refer to Minimum Control Measure #1: 1a-1 thru 1c-6.</p>
<b>*Measurable Goals:</b> <p>Refer to Minimum Control Measure #1: 1a-1 thru 1c-6.</p>
<b>*Timeline/implementation Schedule:</b> <p>Ongoing throughout the term of the permit.</p>
<b>*Specific Components and Notes:</b> <p>Permit Reference – V.G.1.d</p>
<b>*Responsible Party for this BMP:</b> <p>Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us</p>

\*Minimum Required BMP of MS4 Permit



## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1e-1

<b>*BMP Title:</b> ANNUAL PUBLIC MEETING
<b>*BMP Description:</b> An annual meeting will be held in Willmar to provide information and education to residents and all other interested parties on the NPDES program. The annual public meeting will be an accounting of the city's activities in the previous year and what the plan is for the coming year. Attendees will have an opportunity to review the city SWPPP, ask questions and offer comments and suggestions. Input will become part of the public record, be assessed and responded to in writing with revisions to the SWPPP as necessary.
<b>*Measurable Goals:</b> Hold an annual public meeting.
<b>*Timeline/implementation Schedule:</b> One per year, prior to June 30 <sup>th</sup> deadline for submitting the annual report.
<b>*Specific Components and Notes:</b> Permit Reference – V.G.1.e
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 1-Public Education and Outreach

**Unique BMP Identification Number:** 1f-1

<b>*BMP Title:</b> PREPARATION OF MS4 PERMIT APPLICATION**
<b>*BMP Description:</b> The City of Willmar engaged several staff members as follows: Mel Odens, Public Works Director, Bruce Peterson, Planning & Development Direction, Brian Bollig, Assistant City Engineer, Curly Wittman, Engineering Design Technician, Scott Ledebor, Public Works Street Department Foreman, Les Lange, Wastewater Treatment Plant Operation Lab Technician/Safety Coordinator, and Megan Sauer, City Planner to assist in developing and preparing the City's first MS4 Draft Permit Application Submittal.  Also and at-large request for an individual to sit on the storm water committee was made through the Willmar Area Chamber of Commerce newsletter but, no response was obtained from the private business sector.  Storm Water MS4 Committee members met approximately every 2 weeks from November 2006 to January 2007. Completed DRAFT of MS4 Application was presented to City Council for acceptance on February 5, 2007
<b>*Measurable Goals:</b> MS4 Application Submitted to MPCA on time
<b>*Timeline/implementation Schedule:</b> Application due by February 15, 2007
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*\*Preparation of MS4 Permit using an internal committee approach is not a required BMP

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 2-Public Participation/Involvement

**Unique BMP Identification Number:** 2a-1

<b>*BMP Title:</b> COMPLY WITH PUBLIC NOTICE REQUIREMENTS
<b>*BMP Description:</b> Prior to the annual meeting and other public information meetings the City will publish a notice in the West Central Tribune and possible on the City web site ( <a href="http://www.ci.willmar.mn.us">www.ci.willmar.mn.us</a> ). These notices will contain the place, time and purpose of the meeting with contact information if anyone has questions. Notice will appear 30 days prior to the scheduled meeting.  Published notices may also be provided to the MPCA, Kandiyohi County, City and County elected officials, local Soil and Water Conservation Board, and other interested parties that have requested to be informed of the meeting.
<b>*Measurable Goals:</b> Attendance at publicized meetings will be documented The number and location of public meeting notices
<b>*Timeline/implementation Schedule:</b> Annually publish a notice about the public meeting at least 30 days before the meeting date.
<b>*Specific Components and Notes:</b> Permit Reference – V.G.1.e and V.G.2.a
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: <a href="mailto:modens@ci.willmar.mn.us">modens@ci.willmar.mn.us</a>

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 2-Public Participation/Involvement

**Unique BMP Identification Number:** 2b-1

<b>*BMP Title:</b> SOLICIT PUBLIC INPUT AND OPINION ON THE ADEQUACY OF THE SWPPP
<b>*BMP Description:</b> In addition to the opportunity to provide input at the annual meeting (see BMP Summary Sheet 1e-1), the City SWPPP is posted on the city website (www.ci.willmar.mn.us). Contact information is provided to accommodate written and/or oral comment and input. Articles are also published in the City newsletter inviting comments from the public. At the discretion of the City, oral or written answers will be provided.
<b>*Measurable Goals:</b> The # of meeting attendees, the # of people providing comments, the # of oral or written comments received, and the number of responses provided.
<b>*Timeline/implementation Schedule:</b> Each year as part of the annual public meeting. Oral or written answers will be provided to all comments as quickly as possible; but hopefully no later than 60 days after comments have been received.
<b>*Specific Components and Notes:</b> Permit Reference – V.G.1.e and V.G.2.b
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 2-Public Participation/Involvement

**Unique BMP Identification Number:** 2c-1

<b>*BMP Title:</b> CONSIDER PUBLIC INPUT
<b>*BMP Description:</b> In addition to the opportunity to provide input at the annual meeting (see BMP Summary Sheet 1e-1), the City SWPPP is posted on the city website (www.ci.willmar.mn.us). Contact information is provided to accommodate written and/or oral comment and input. Articles are also published in the City newsletter inviting comments from the public.
<b>*Measurable Goals:</b> The # of meeting attendees, the # of people providing comments, and the # of oral or written comments received.
<b>*Timeline/implementation Schedule:</b> Each year as part of the annual public meeting and ongoing throughout the term of the permit.
<b>*Specific Components and Notes:</b> Permit Reference – V.G.1.e and V.G.2.b
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 3-Illicit Discharge Detection and Elimination

**Unique BMP Identification Number:** 3a-1

<b>*BMP Title:</b> STORM SEWER SYSTEM MAP
<b>*BMP Description:</b> A working Storm Sewer System GIS Map is nearly in-place. Base mapping completed thus far includes pipes, catch basins and storm sewer manholes. Future features to be added will include sewer outfalls and receiving waters i.e. lakes, ditches, creeks, etc. Water quality BMP's such as detention/retention basins, stormceptors, grass swales will also be added.
<b>*Measurable Goals:</b> Annual updates based on new or reconstructed improvements to the system. Separate layer for outfalls and other discharge points leaving the City. Separate layer for water quality BMP's
<b>*Timeline/implementation Schedule:</b> A DRAFT GIS Map should be available Fall 2007 Annual updates to Map will be made every two (2) years starting in Spring 2009.
<b>*Specific Components and Notes:</b> Permit Reference – V.G.3.a
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 3-Illicit Discharge Detection and Elimination

**Unique BMP Identification Number:** 3b-1

<b>*BMP Title:</b> REGULATORY CONTROL PROGRAM
<b>*BMP Description:</b> Evaluate the City's existing ordinances and procedures to identify what regulatory controls are already in place to effectively prohibit significant non-storm water (illicit) discharge into the storm sewer system. The City will review in-place ordinances, review ordinances of adjacent communities and prepare and propose City ordinances, ordinance amendments for policies that provide regulatory authority to manage storm water to Maximum Extent Practical (MEP). Provide training for consistent City Staff implementation.
<b>*Measurable Goals:</b> Review in place ordinances. Review relevant ordinances of other comparable communities. Prepare proposed ordinances or amendments City Council review and approval of ordinance. Provide training for consistent City staff implementation
<b>*Timeline/implementation Schedule:</b> Review in-place ordinances & relevant ordinances of other communities – 2008 Prepare proposed ordinances or amendments – 2008-09 Implement by 2010
<b>*Specific Components and Notes:</b> Permit Reference – V.G.3.b
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 3-Illicit Discharge Detection and Elimination

**Unique BMP Identification Number:** 3c-1

<b>*BMP Title:</b> ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDEA) PLAN
<b>*BMP Description:</b> City staff will devise a program to identify, educate and eliminate sources of illegal discharges from residential, commercial and industrial properties into the storm sewer system. IDDE program will consist of mapping existing storm sewer system (see BMP 3a-1), identifying policies or ordinances that already exist (BMP 3b-1), adopt rules to fill in gaps in existing code or rules (BMP 3b-1), developing field procedures for identifying illicit connections and developing administrative procedures for educating and notifying violators and enforcing compliance.
<b>*Measurable Goals:</b> Develop and implement an illicit discharge inspection and assessment program Incorporate the illicit discharge inspection program into the SWPPP. Perform inspections as outlined in illicit discharge inspection program of MS4 permit.
<b>*Timeline/implementation Schedule:</b> Planning phases of program & development - 2008 “Draft” illicit discharge inspection and assessment program – 2009 Finalize illicit discharge inspection and assessment program - 2010
<b>*Specific Components and Notes:</b> Permit Reference V.G.3.a
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit



## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 3-Illicit Discharge Detection and Elimination

**Unique BMP Identification Number:** 3d-1

<b>*BMP Title:</b> PUBLIC AND EMPLOYEE ILLICIT DISCHARGE INFORMATION PROGRAM
<b>*BMP Description:</b> See 1c-3 for illicit discharge information program for the general public and businesses.  Develop and implement a public and employee illicit discharge information program to include a brochure to help explain illicit discharge and who to call if someone believes they are witnessing an illicit discharge. Brochure to be distributed on website and water bill, school programs or through the local tv programming. Employee information will target examples of illicit discharge that are both general and specific. Employee seminars/training will be held once each permit cycle.
<b>*Measurable Goals:</b> # of brochures distributed # of individuals attending training Document responses to the inspection and assessment program Modify illicit discharge inspection program according to comments received.
<b>*Timeline/implementation Schedule:</b> Develop and distribute illicit discharge brochure – 2008 Hold employee training seminars by 2009 .
<b>*Specific Components and Notes:</b> Permit Reference V.G.3.d
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 3-Illicit Discharge Detection and Elimination

**Unique BMP Identification Number:** 3e-1

<b>*BMP Title:</b> IDENTIFICATION OF NON-STORM WATER DISCHARGE AND FLOWS
<b>*BMP Description:</b> As directed by our MS4 permit, the City will develop a process to evaluate whether any of the following categories of non-storm water discharges are significant contributors of pollutants to the City's storm water management system:  Water line flushing, landscape irrigation, diverted stream flows rising groundwaters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air condition condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street waste water, and discharges or flows from fire fighting activities.  For any non-storm water discharges or flows which the City finds to be a significant contributor of pollutants to the MS4 the City will develop an action plan to evaluate and address the impact the discharge is having on storm water quality.
<b>*Measurable Goals:</b> Develop a process to investigate and evaluate the potential for non-storm water discharges identified in permit (see Part V.G.3.e) Conduct investigation and evaluation of non-storm water discharges and flows For those non-storm water discharges or flows identified as significant contributors of pollutants to our MS4, develop an action plan to evaluate and address the impact the discharge is having on storm water quality. Implement the action plan for significant non-storm water discharges and flows
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle. Targeted completion of process to investigate and evaluate the potential for non-storm water discharges by Year 2008.
<b>*Specific Components and Notes:</b> Permit Reference V.G.3.e
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 4-Construction Site Storm Water Runoff Control

**Unique BMP Identification Number:** 4a-1

<b>*BMP Title:</b> ORDINANCE OR OTHER REGULATORY MECHANISM
<b>*BMP Description:</b> The City of Willmar has an established Storm Water Management Ordinance, that is used in part, to provide construction site storm water runoff control. The City will analyze this ordinance along with a grading plan review checklist, drainage report review and approval procedures, construction site inspection and enforcement procedures. The City will also develop systematic procedures to reviewing grading plans and drainage reports.
<b>*Measurable Goals:</b> Review current City ordinances and ordinances of comparable sized communities. Develop grading plan review checklist and drainage report for all significant developments.
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b> Permit Reference V.G.4.a
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 4-Construction Site Storm Water Runoff Control

**Unique BMP Identification Number:** 4b-1

<b>*BMP Title:</b>	CONSTRUCTION SITE IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL BMPS
<b>*BMP Description:</b>	The City of Willmar will review best management practices listed in BWSR's MN Construction Site Erosion and Sediment Control Handbook, MPCA Protecting Water Quality in Urban Areas manual, and the State of MN Storm Water Manual. Reference manuals will be utilized to make a standard operations procedures checklist for minimum required BMP's to developers, contractors and city staff during site plan review.
<b>*Measurable Goals:</b>	Review current BMP Certify staff in Pollution Prevention Plan & Inspection of Erosion & Sediment Control Train staff on minimum BMP which should be implemented for the City of Willmar. Distribute BMP sheets to builders/developers
<b>*Timeline/implementation Schedule:</b>	Report number of site plan reviews for each annual report Provide list of certified erosion and sediment control staff
<b>*Specific Components and Notes:</b>	Permit Reference V.G.4.b
<b>*Responsible Party for this BMP:</b>	Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 4-Construction Site Storm Water Runoff Control

**Unique BMP Identification Number:** 4c-1

<b>*BMP Title:</b> WASTE CONTROLS FOR CONSTRUCTION SITE OPERATORS
<b>*BMP Description:</b> The City of Willmar will inspect construction sites for site waste and debris control (e.g. discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste). The City will educate Owners, Developers, and Contractors on appropriate BMP's. The City will issue warnings or other appropriate measures to ensure that waste controls for construction site operators are adhered to.
<b>*Measurable Goals:</b> Review current BMP Certify staff in implementation of SWPPP Train staff on minimum BMPs which should be implemented for the City of Willmar Distribute BMP sheets to builders/developers
<b>*Timeline/implementation Schedule:</b> Report number of site plan reviews for each annual report Provide list of certified erosion and sediment control staff
<b>*Specific Components and Notes:</b> Permit Reference V.G.4.b
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

## BMP SUMMARY SHEET

**MS4 NAME** CITY OF WILLMAR

**Minimum Control Measure:** 4-Construction Site Storm Water Runoff Control

**Unique BMP Identification Number:** 4d-1

<b>*BMP Title:</b>	PROCEDURE FOR SITE PLAN REVIEW
<b>*BMP Description:</b>	The City of Willmar will review its site plan review process for new subdivisions or commercial/industrial development, construction/reconstruction of municipal infrastructure or construction initiated through a local building permit.
<b>*Measurable Goals:</b>	Document number of each type of site plan review as compared to the total number of projects for each category.
<b>*Timeline/implementation Schedule:</b>	100% implementation by end of permit term.
<b>*Specific Components and Notes:</b>	Permit Reference V.G.4.d
<b>*Responsible Party for this BMP:</b>	Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 4-Construction Site Storm Water Runoff Control  
**Unique BMP Identification Number:** 4e-1

<p><b>*BMP Title:</b> ESTABLISHMENT OF PROCEDURES FOR THE RECEIPT AND CONSIDERATION OF REPORTS OF STORM WATER NONCOMPLIANCE</p>
<p><b>*BMP Description:</b></p> <p>The City will designate a person to be the general intake person for receiving storm water related inquiries, service requests, complaints, or reports of alleged violations.</p> <p>The Engineering Department will work closely with this person to address questions and concerns raised about construction site runoff controls.</p> <p>Storm water contact information will also be provided on the City Storm Water Web Site (once created) for correspondence and other information.</p>
<p><b>*Measurable Goals:</b></p> <p># of issues and complaints received on construction sites and follow-up response by City documented in Annual Report</p>
<p><b>*Timeline/implementation Schedule:</b></p> <p>Ongoing throughout the term of the permit.</p>
<p><b>*Specific Components and Notes:</b></p> <p>Permit Reference V.G.4.e</p>
<p><b>*Responsible Party for this BMP:</b></p> <p>Name: Melvin Odens, Public Works Director          Department: Public Works          Phone: (320) 214-5169          E-mail: modens@ci.willmar.mn.us</p>

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 4-Construction Site Storm Water Runoff Control  
**Unique BMP Identification Number:** 4f-1

<b>*BMP Title:</b> ESTABLISHMENT OF PROCEDURES FOR SITE INSPECTIONS AND ENFORCEMENT
<b>*BMP Description:</b> The City of Willmar will develop and establish procedures for conducting site inspections and enforcement. Procedures will be developed using 1) BMPs common to the Willmar area, 2) by reviewing similar communities with established procedures and 3) review of minimum standards located in the MPCA construction activity permit. See inspections will be designated to individuals. Staff education will be required.  Contact information will also be provided on the City Storm Water Web site (once created) for correspondence and other information.
<b>*Measurable Goals:</b> Written operation procedures # of site inspections per site per year # of enforcement actions per year
<b>*Timeline/implementation Schedule:</b> Develop Site Inspection Procedures – 2008 Implement Site Inspection Procedures – 2009 Review & Revise Developed Procedures – 2010
<b>*Specific Components and Notes:</b> Permit Reference V.G.4.e
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit



**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 5-Post-Construction Storm Water Management  
in New Development and Redevelopment  
**Unique BMP Identification Number:** 5a-1

<p><b>*BMP Title:</b> DEVELOPMENT AND IMPLEMENTATION OF STRUCTURAL AND/OR NON-STRUCTURAL BMPS</p>
<p><b>*BMP Description:</b></p> <p>The City of Willmar has had a Storm Water Management Ordinance in effect since 1997. Appreciable structural water quality BMP's have been installed as a result of this ordinance. The City will review this ordinance to determine if it is satisfactory to continue to meet the conditions of its MS4 permit including any EPA approved TMDL implementation plans.</p> <p>The City of Willmar will also continue to entertain non-structural concepts by striving to integrate storm water treatment facilities in parks or other green space areas as development proceeds.</p> <p>It is the City's intent to create a strategic planning policy which embodies both immediate and future storm water requirements. The purpose of this plan is to help identify water quality treatment areas in City Parks, green spaces, new development, expanding infrastructure, or other areas. This strategic policy will help facilitate a Storm Water Capital Infrastructure Program (CIP).</p>
<p><b>*Measurable Goals:</b></p> <p>The #, type, size and location of permanent storm water BMP for new or redeveloped areas.</p>
<p><b>*Timeline/implementation Schedule:</b></p> <p>Ongoing throughout the term of the permit.</p>
<p><b>*Specific Components and Notes:</b></p> <p>Permit Reference V.G.5.a</p>
<p><b>*Responsible Party for this BMP:</b></p> <p>Name: Melvin Odens, Public Works Director  Department: Public Works  Phone: (320) 214-5169  E-mail: modens@ci.willmar.mn.us</p>

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 5-Post-Construction Storm Water Management  
in New Development and Redevelopment  
**Unique BMP Identification Number:** 5b-1

<b>*BMP Title:</b>	REGULATORY MECHANISM TO ADDRESS POST CONSTRUCTION RUNOFF FROM NEW DEVELOPMENT AND REDEVELOPMENT
<b>*BMP Description:</b>	The City will review its existing Storm Water Management Ordinance to determine if it adequately addresses Re-development conditions. Regulatory mechanisms will also be reviewed for both new development and redevelopment areas.
<b>*Measurable Goals:</b>	Review current ordinances Propose revisions and implement updates to existing Storm Water Management Ordinance if appropriate.
<b>*Timeline/implementation Schedule:</b>	Ongoing throughout the term of the permit.
<b>*Specific Components and Notes:</b>	Permit Reference V.G.5.a
<b>*Responsible Party for this BMP:</b>	Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 5-Post-Construction Storm Water Management  
in New Development and Redevelopment  
**Unique BMP Identification Number:** 5c-1

<p><b>*BMP Title:</b> LONG-TERM OPERATION AND MAINTENANCE OF BMPs</p> <p><b>*BMP Description:</b> The City of Willmar will create a database of all Storm Water BMP's in-place within the City of Willmar to include items such as construction year, size, type, number, owner, type of maintenance program etc.</p> <p>For all municipal owned and operated storm water quality BMPs, the City of Willmar will implement a regular inspection and maintenance program to ensure proper function.</p> <p>The City will notify all private, structural BMPs constructed since Year 1997 for land disturbing activities <math>\geq 5</math> acres (creation of City's Storm Water Management Ordinance) and all land disturbing <math>\geq 1</math> acre of imperviousness of their responsibility to execute annual inspection and maintenance programs for their permanent storm water quality BMPs.</p>
<p><b>*Measurable Goals:</b></p> <p>Total number of municipal BMPs</p> <p>Total number of municipal BMPs inspected</p> <p>Total number of municipal BMPs requiring maintenance</p> <p>Inspection and maintenance efforts will be logged for annual reporting</p>
<p><b>*Timeline/implementation Schedule:</b></p> <p>Ongoing throughout the term of the permit</p>
<p><b>*Specific Components and Notes:</b></p> <p>Permit Reference V.G.5.c</p>
<p><b>*Responsible Party for this BMP:</b></p> <p>Name: Melvin Odens, Public Works Director</p> <p>Department: Public Works</p> <p>Phone: (320) 214-5169</p> <p>E-mail: modens@ci.willmar.mn.us</p>

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6a-1

<b>*BMP Title:</b> MUNICIPAL OPERATIONS AND MAINTENANCE PROGRAM
<b>*BMP Description:</b>  See 1c-6 for details on the Education Program for Pollution Prevention/Good Housekeeping for Municipal Operations, including operation and maintenance (O&M) training.  See 5c-1 for details on the Long-Term Operation and Maintenance of BMPs  See 6a-2, 6b-2, 6b-3, 6b-4, 6b-5, and 6b-6 for details on other O&M BMPs
<b>*Measurable Goals:</b> See 1c-6 See 5c-1 See 6a-2 See 6b-3.
<b>*Timeline/implementation Schedule:</b> Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b> Permit Reference V.G.6.a and V.G.6.b-1
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6a-2

<b>*BMP Title:</b> STREET SWEEPING**
<b>*BMP Description:</b> <p>The City of Willmar Public Works Department has been following a routine schedule of street sweeping for many years. Beginning in March through fall and whenever weather allows, the city streets are swept on a rotating basis. Most streets are swept multiple times per year.</p> <p>The City owns and operates one (1) Elgin Pelican mechanical broom sweeper.</p> <p>Existing or enhanced street sweeping may have a tremendous positive impact on overall water quality. City staff will evaluate the effectiveness of street sweeping as it relates to the requirements of TMDL #1.</p> <p>Granular materials collected from street sweeping are disposed of at the Kandiyohi County Landfill where it is used as daily cover material. Leaves are composted at the City's Compost/Brush Site.</p> <p>The total approximate volume of granular material collected from City streets in Year 2005 was 1500 tons of material. The total volume of leaves collected was about 1500 cubic yards.</p>
<b>*Measurable Goals:</b> <p>Approximate total volume of granular material and organic material i.e. leaves swept from the streets each year. Compare estimated volume collected to the <u>estimated</u> total volume of material landing in the City streets.</p>
<b>*Timeline/implementation Schedule:</b> <p>Ongoing throughout the term of the permit</p>
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> <p>Name: Melvin Odens, Public Works Director  Department: Public Works  Phone: (320) 214-5169  E-mail: modens@ci.willmar.mn.us</p>

\*\*Street sweeping is not a required BMP

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-1

<b>*BMP Title:</b> OPERATE AND MAINTAIN STORM WATER SYSTEM SO AS TO REDUCE THE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE
<b>*BMP Description:</b> See BMP 6b-2 through 6b-7
<b>*Measurable Goals:</b> See BMP 6b-2 through 6b-7
<b>*Timeline/implementation Schedule:</b> Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b> Permit Reference V.G.6.b.2
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Required BMP of MS4 Permit but not minimum required

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-2

<b>*BMP Title:</b>	ANNUAL INSPECTION OF ALL STRUCTURAL POLLUTION CONTROL DEVICES
<b>*BMP Description:</b>	Structural pollution control devices (e.g. trap manholes, grit chambers, sumps, floatable skimmers and traps, separators, small settling or filtering devices). The City of Willmar will inspect all structural pollution control devices at least once per year
<b>*Measurable Goals:</b>	# of pollution control devices # of pollution control devices inspected
<b>*Timeline/implementation Schedule:</b>	Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b>	Permit Reference V.G.6.b.2
<b>*Responsible Party for this BMP:</b>	Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-3

<b>*BMP Title:</b> INSPECTION OF A MINIMUM OF 20% OF THE MS4 OUTFALLS, SEDIMENT BASINS AND PONDS EACH YEAR ON A ROTATING BASIS
<b>*BMP Description:</b> The City of Willmar will develop and implement an inspection, maintenance, tracking system for MS4 outfalls, sediment basins and ponds on a rotating basis. Results of inspection will be summarized in annual report.  Initial work will consist of creating tracking system and may result in more than 20% of items inspected in any given year. By the end of the 5-year permit cycle, all items will have been inspected.
<b>*Measurable Goals:</b> Develop and implement an inspection tracking system. Summarize results of inspection and maintenance in annual reports.
<b>*Timeline/implementation Schedule:</b> Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b> Permit Reference V.G.6.b.3
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit



**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-4

<b>*BMP Title:</b> ANNUAL INSPECTION OF ALL EXPOSED STOCKPILE, STORAGE, AND MATERIAL HANDLING AREAS.
<b>*BMP Description:</b> City staff will review exposed stockpiles, storage and material handling areas to determine if materials have potential for significant storm water pollution.
<b>*Measurable Goals:</b> # of exposed stockpiles, storage and material handling areas located outside # of exposed stockpiles, storage, and material handling areas with significant storm water pollution potential.
<b>*Timeline/implementation Schedule:</b> Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b> Permit Reference V.G.6.b.4
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-5

<p><b>*BMP Title:</b> INSPECTION FOLLOW-UP INCLUDING THE DETERMINATION OF WHETHER REPAIR, REPLACEMENT OR MAINTENANCE MEASURES ARE NECESSARY AND THE IMPLEMENTATION OF THE CORRECTIVE MEASURES</p>
<p><b>*BMP Description:</b>  Each of the following SWPPP BMPs contain elements related to maintenance following inspections:  3c-1 Illicit Discharge Detection and Elimination Plan  5c-1 Long-Term Operation and Maintenance of BMPs  6a-2 Inspection of a Minimum of 20% of the MS4 Outfalls, Sediment Basins and Ponds Each Year on a Rotating Basis  6b-4 Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas</p> <p>In general, an inspection record appropriate to the inspection type will be used to document each inspection's findings. Inspection findings will be used to determine if follow-up repair, replacement or maintenance measures are necessary.</p> <p><i>According to permit reference V.G.6.b.5 repair, replacement or maintenance measures will be completed in same year as inspection; otherwise the reasons and a schedule for completion will be submitted in the annual report.</i></p>
<p><b>*Measurable Goals:</b>  # of inspections requiring repair, replacement or maintenance.  # of repairs, replacement or maintenances for each given description area.</p>
<p><b>*Timeline/implementation Schedule:</b>  Ongoing throughout the term of the permit</p>
<p><b>*Specific Components and Notes:</b>  Permit Reference V.G.6.a and V.G.6.b-1</p>
<p><b>*Responsible Party for this BMP:</b>  Name: Melvin Odens, Public Works Director  Department: Public Works  Phone: (320) 214-5169  E-mail: modens@ci.willmar.mn.us</p>

\*Minimum Required BMP of MS4 Permit

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**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-6

<b>*BMP Title:</b> RECORDKEEPING, REPORTING, AND RECORD RETENTION OF ALL INSPECTIONS AND RESPONSES TO THE INSPECTIONS
<b>*BMP Description:</b> The City will create a database to track reporting and record retention of all inspections and responses to the inspections.
<b>*Measurable Goals:</b> Database of record keeping system Summary of records and retention system documented in annual report
<b>*Timeline/implementation Schedule:</b> Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b> Permit Reference V.G.6.b-6 and V.G.6.b-7
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Minimum Control Measure:** 6-Pollution Prevention/Good Housekeeping for  
Municipal Operations  
**Unique BMP Identification Number:** 6b-7

<b>*BMP Title:</b> EVALUATION OF INSPECTION FREQUENCY
<b>*BMP Description:</b> The City of Willmar will monitor the evaluation of inspection frequency on an ongoing basis per the permit requirements as follows: V.G.6.b.2 – Pollution control devices - annually V.G.6.b.3 – MS4 Outfalls, sediment basins, ponds - minimum 20% per year. V.G.6.b.4 – Stockpiles, storage and material handling – annually Evaluation of inspection frequency will be modified per V.G.6.b.7 as follows: <i>“...If maintenance or sediment removal is required as a result of each of the first two annual inspections, the frequency of inspection shall be increased to at least two (2) times annually, or more as needed to prevent carry-over or washout of pollutants...If maintenance or sediment removal is not required as a result of both of the first two (2) annual inspections, the frequency may be reduced to once every two (2) years.”</i>
<b>*Measurable Goals:</b> # of inspections per type per site # or repairs, maintenance or other corrective action per type per site
<b>*Timeline/implementation Schedule:</b> Ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b> Permit Reference V.G.6.b.7
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit

**MS4 NAME** CITY OF WILLMAR  
**Permit Section:** Part III.E and Part VI

<b>*BMP Title:</b> EVALUATING, RECORDKEEPING, REPORTING, AND RECORD RETENTION
<b>*BMP Description:</b> The City will retain copies of the permit application, the SWPPP, all data and information used to complete the application, and any information developed as a requirement of the permit for a period of at least 3 years after the five-year NPDES permit cycle has expired.  The City will prepare an annual report that evaluates and summarizes, for the previous calendar year, program compliance, the appropriateness of the BMPs in the SWPPP, and progress towards achieving the measurable goals contained in the permit and SWPPP.
<b>*Measurable Goals:</b> Records for the 2011 permit ending cycle will be accessible until at least February, 2014.  An annual report will be prepared using the MPCA's reporting form and submitted to the MPCA by the annual deadline.
<b>*Timeline/implementation Schedule:</b> Records through the 2011 permit will be filed as needed throughout the duration of the permit and retained until at least February, 2014.
<b>*Specific Components and Notes:</b> None.
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

\*Minimum Required BMP of MS4 Permit


# Total Maximum Daily Loads

The City of Willmar's MS4 Permit General Permit (**permit reference IV.D**) requires the City to review the adequacy of its Storm Water Pollution Prevention Program per requirements of any United States Environmental Protection Agency (USEPA) approved Total Maximum Daily Load (TMDL) Implementation Plans. As of 2004, approximately 58 TMDLs for various pollutant loadings are being planned for the MN River where approximately 65 percent of Willmar's watershed flows. Similarly, other TMDLs are being planned for the South Fork of the Crow River whereas the rest of Willmar's watershed discharges.

The only current USEPA approved TMDL Implementation Plan for Willmar's receiving waters is:

## TMDL #1 - Lower Minnesota River Dissolved Oxygen TMDL

This project addresses an impairment in the lower 22 miles of the MN River during low flow conditions. During low flows, excess phosphorus generates algal blooms. Eventually, the algae die off and decompose. The decomposition process creates a shortage of the dissolved oxygen needed to sustain aquatic life. The following documents provide additional information:

-  [Lower Minnesota River TMDL: Low Dissolved Oxygen](#) - The U.S. EPA approved the TMDL Implementation Plan in February 2006. The Implementation Plan outlines the strategies to meet the goals of the TMDL for each source affecting water quality. The four main sources of excess phosphorus during low flow conditions include wastewater treatment facilities, direct discharges of sewage, storm water and agriculture.

The Lower MN River Dissolved Oxygen TMDL approved implementation plan requires MS4 communities including the City of Willmar to reduce phosphorous loading from storm water runoff by 30 percent (a correction factor for growth must be applied which will likely increase this percent). The phosphorous reduction is based on 2000 land use and assumes no BMPs were in place at that time.

MPCA has published a DRAFT Guidance Document for Communities on How to Integrate Lower Minnesota River Dissolved Oxygen TMDL Requirements and MS4 Storm Water Pollution Prevention Programs dated May 2006. This DRAFT document is used to help prepare DRAFT BMPs for complying with TMDL #1. **The City of Willmar reserves the right to modify, change, or delete any BMPs should MPCA modify their Draft Guidance Document.**

Future TMDLs are likely forthcoming. To promote BMPs in a consistent and efficient manner a group of BMPs herein referred to as “GENERAL” will be created to be common to all TMDLs as follows:

**TMDLs:**

**GENERAL**

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
TMDL General-1	Develop a TMDL Public Communication Plan	<b>IV.D</b>
TMDL General-2	List City Staff with Storm Water Responsibilities	<b>IV.D</b>
TMDL General-3	List Agencies with Storm Water Responsibilities	<b>IV.D</b>
TMDL General-4	List Existing Water Resources Planning Tools	<b>IV.D</b>
TMDL General-5	Detailed Map of Discharge Points, Drainage Areas & Conveyance Systems	<b>IV.D</b>
TMDL General-6	Identify Other Potential TMDLs That May Effect System	<b>IV.D</b>

**TMDL#1:** a-DETAILED MS4 MAPPING FOR MEETING TMDL #1

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
TMDL#1a-1	Develop Phosphorous Contributing Factors List	<b>IV.D</b>
TMDL#1a-2	Calculate Required Phosphorous Loading Correction	<b>IV.D</b>
TMDL#1a-3	Map Existing BMPs and Calculate Phosphorous Reductions Already In-Place	<b>IV.D</b>
TMDL#1a-4	Track BMPs in New Developments and Calculate Phosphorous Reductions as They Occur	<b>IV.D</b>
TMDL#1a-5	Correlate Mapping with Potential Water Quality Models	

**TMDL#1:** b- DETAILED TOOLS FOR MEETING TMDL#1

<b>Key to Unique BMP ID Numbers</b>	<b>Required BMP Title</b>	<b>Permit Reference</b>
TMDL#1b-1	Determine if Existing BMPs Can Be Enhanced and If So, Calculate Benefit	<b>IV.D</b>
TMDL#1b-2	Create a Menu for BMP Selection	<b>IV.D</b>
TMDL#1b-3	Determine if Low Impact Development (LID) is an Option for Development	<b>IV.D</b>
TMDL#1b-4	Establish Schedule for Monitoring, Operating, and Maintaining BMPs	<b>IV.D</b>
TMDL#1b-5	Describe the Plat Review Process	<b>IV.D</b>
TMDL#1b-6	Develop Capital Improvement Plan (CIP) to Meet TMDL #1.	<b>IV.D</b>
TMDL#1b-7	Describe Funding Mechanism	<b>IV.D</b>

## **FUTURE TMDL'S**

As of September 2007, the only current USEPA approved TMDL Implementation Plan for Willmar's receiving waters is TMDL #1, which is the lower Minnesota River Dissolved Oxygen TMDL. In an effort to address future TMDL'S and their associated waste load allocations, the City of Willmar has addressed the following activities to reduce the waste load allocation, if and when future TMDL'S are implemented.

### Section 1-Determine a general strategy and schedule for meeting a TMDL requirement

#### 1. General Strategy to meet a future TMDL

The City of Willmar will attempt to reduce pollutant loads through non-structural BMPs designed for source control such as leaf recycling, as well as treating existing loads such as street sweeping. As well as implementing these BMPs, the City of Willmar will continue to monitor development and reconstruction to meet current requirements.

#### 2. Pollutant Tracking System

The City of Willmar will investigate various forms of tracking pollutant load reductions to best meet the needs of the requirement. Once loads meet the TMDL requirement, some verification monitoring will be addressed.

#### 3. Schedule for achieving TMDL requirements

The City of Willmar will achieve necessary pollutant reductions by starting with this permit cycle and including future permit cycles. During the first permit cycle, the City of Willmar will evaluate its existing storm water program, and determine if the program requires modification. The City will be providing public education on ways the general public can assist with reducing pollutant loads. In future permit cycles, the City of Willmar will modify its storm water program as necessary, implement non-structural BMPs, develop a system to evaluate the effectiveness of these BMPs and implement structural BMPs if opportunities arise.

### Section 2-Building, implementing, and maintaining a Storm Water Program

See attached Checklist (Table 1)

### Section 3 – Mapping and Load calculation

The City of Willmar, through this permit cycle will map out the discharge points and determine drainage area contributing to them. In future permit cycles, load calculations will be done based on each contributing area.



<b>TABLE 1</b>			
<b>Element</b>	<b>Yes/No</b>	<b>Info Sheet</b>	<b>Comments</b>
<b>2.1 STORMWATER ORGANIZATION/PROGRAM</b>			
Answer the following questions related to the organization of the stormwater program within your MS4. Then, determine if you already have a fully implemented stormwater organization or if there are gaps in the current structure that need to be addressed.			
a. Do you know in what department the stormwater program will be housed?	Yes	2.1.a	Public Works Department
b. What stormwater activities are currently conducted through the program?		2.1.b	Planning for Public Education
c. Have staff been defined who will be responsible for administering the functions of the program?	No	2.1.c	Staff will be identified
d. Has level of funding needed to staff each program been determined?	No	2.1.d	Developing a 5 yr CIP
e. Are there other requirements the city has related to stormwater?	Yes	2.1.e	Local Storm Water Ordinance
f. Are there other organizations with overlapping or related responsibilities?	Yes	2.1.f	WWTP requirements
<b>Do you have a fully implemented stormwater organization based on the above questions? If no, indicate in your SWPPP where the deficiencies lie and your plan to address them.</b>	No		Identified within the SWPPP
<b>2.2 RESOURCES FOR IMPLEMENTATION</b>			
Answer the following questions that relate the resources your MS4 currently has available for the implementation of the TMDL requirements.			
a. Will you require and do you have a Geographic Information Systems (GIS)	No	2.2.a	Currently engaged in a GIS mapping process for storm sewer
b. Will you require and do you have a database management system	Yes	2.2.b	
c. Will you require and do you have modeling resources	No	2.2.c	
d. Other (including necessary staff)		2.2.d	Staffing is being evaluated

<b>TABLE 1 continued.....</b>			
<b>Do you have the needed resources for implementation of the TMDL requirements? If no, indicated in your SWPPP where the deficiencies lie and your plan to address them.</b>	Yes		Additional resources will be needed in future permit cycles.
<b>2.3 REGULATORY TOOLS AND NEEDS</b>			
Considering your strategy for meeting the TMDL requirements, answer the following questions related to the regulatory tools you may need to meet the TMDL requirements.			
2.3a. Will you need additional authorities for building codes, easements, and ownerships	No	2.3	
2.3b. Will you require additional authorities on development issues (e.g. input on plat review process)	Yes	2.3	May need assistance with consultants
2.3c. Will you require additional ordinances (e.g. to implement Low Impact Development)	Yes	2.3	
<b>Do you have the needed regulatory tools for implementation of the TMDL requirements? If no, indicated in your SWPPP where the deficiencies lie and your plan to address them.</b>	No		Additional ordinances may need to be developed.
<b>2.4 FUNDING MECHANISM</b>			
Considering your strategy for meeting the TMDL requirements, answer the following questions related to the regulatory tools you may need to meet the TMDL requirements.			
2.4a. Do you have a stable funding source dedicated to stormwater management?	No	2.4	Reviewing options for additional funding
2.4b. Can stormwater funds be used to implement actions outlined in your strategy (e.g. for Capital Improvement Projects)	No	2.4	
<b>Do you have the needed funding resources for implementation of the TMDL requirements? If no, indicated in your SWPPP where the deficiencies lie and your plan to address them.</b>	No		May require stormwater utility fee.

**MS4 NAME** CITY OF WILLMAR  
**TMDL:** GENERAL  
**Unique BMP Identification Number:** TMDL General-1

<b>*BMP Title:</b> DEVELOP A TMDL PUBLIC COMMUNICATION PLAN
<b>*BMP Description:</b> Develop a Communication Plan to inform the community, business people, industrial and other stakeholders about the TMDL and the process for meeting requirements of the TMDL.
<b>*Measurable Goals:</b> # People or Groups informed about TMDL process
<b>*Timeline/implementation Schedule:</b> First Year - Develop List Update ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL:** GENERAL  
**Unique BMP Identification Number:** TMDL General-2

<b>*BMP Title:</b> LIST CITY STAFF WITH STORM WATER RESPONSIBILITIES
<b>*BMP Description:</b> Identify and list all city entities that have functions or requirements associated with storm water management
<b>*Measurable Goals:</b> Prepare documented list of city entities and their relationship and interaction with storm water
<b>*Timeline/implementation Schedule:</b> First Year - Develop List Update ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL:** GENERAL  
**Unique BMP Identification Number:** TMDL General-3

<b>*BMP Title:</b> LIST AGENCIES WITH STORM WATER RESPONSIBILITIES
<b>*BMP Description:</b> List other agencies that have functions or requirements associated with storm water management.
<b>*Measurable Goals:</b> Prepare documented list of other agencies and their relationship and interaction with storm water in the Willmar Area.
<b>*Timeline/implementation Schedule:</b> First Year - Develop List Update ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL:** GENERAL  
**Unique BMP Identification Number:** TMDL General-4

<b>*BMP Title:</b> LIST EXISTING WATER RESOURCES PLANNING TOOLS
<b>*BMP Description:</b> List existing water resource planning tools. Examples include drainage plan updates, wetland protection and management plans, local water management plans, and wellhead protection plans.
<b>*Measurable Goals:</b> Prepare documented list of water resource planning tools and their relationship and interaction with storm water in the Willmar Area.
<b>*Timeline/implementation Schedule:</b> First Year - Develop List Update ongoing throughout the term of the permit
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL:** GENERAL  
**Unique BMP Identification Number:** TMDL General-5

<b>*BMP Title:</b> DETAILED MAP OF DISCHARGE POINTS, DRAINAGE AREAS, AND CONVEYANCE SYSTEMS
<b>*BMP Description:</b> The storm water general permit requires identification of outfalls, conveyances 24 inches or greater in diameter. Requirements to meet approved TMDL Implementation Plans will require significantly more detail. The City of Willmar is currently engaged in a GIS Mapping process to acquire ALL significant known storm pipe and conveyances to our receiving waters.
<b>*Measurable Goals:</b> Complete GIS based map
<b>*Timeline/implementation Schedule:</b> Update GIS Mapping on an ongoing basis.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL:** GENERAL  
**Unique BMP Identification Number:** TMDL General-6

<b>*BMP Title:</b> IDENTIFY OTHER "POTENTIAL" TMDLS THAT MAY AFFECT SYSTEM
<b>*BMP Description:</b> Identify and list other TMDLs that may affect the City of Willmar MS4 community. MPCA's 2006 list of impaired waters and the current TMDL list will be of value in identifying these water bodies. The purpose of identifying other TMDLs is to identify as early as possible the most restrictive TMDL.  Effective strategic planning will require the City of Willmar to be aware of potential TMDLs before they arrive on the MPCA list of impaired waters. Staff time and effort will be required to understand critical issues and potential impacts.
<b>*Measurable Goals:</b> # of meetings, conferences, committees discussing impending TMDLs
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us



**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** a – Mapping  
**Unique BMP Identification Number:** TMDL#1a-1

<b>*BMP Title:</b> DEVELOP PHOSPHOROUS CONTRIBUTING FACTORS LIST
<b>*BMP Description:</b> Determine, develop and prioritize a phosphorous contributing factors list. If applicable, map factors useful in identifying potential phosphorus contributions. These may include percent impervious surface, land use (e.g. commercial, residential, industrial, park), and soil types. The greater the detail that can be achieved in mapping these, the greater the flexibility will be in implementing BMPs to meet the reduction requirement.
<b>*Measurable Goals:</b> List of phosphorous contributing factors
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR

**TMDL #1:** a – Mapping

**Unique BMP Identification Number:** TMDL#1a-2

<b>*BMP Title:</b> CALCULATE REQUIRED PHOSPHOROUS LOADING CORRECTION
<b>*BMP Description:</b> Identify and map your current and year 2000 urban footprint. Aerial photos will be used for identifying the 2000 footprint. To the extent practical, identify and map future land use. The following link identifies projected population growth over the next 20 years and may be useful in identifying future expansion of your community ( <a href="http://www.demography.state.mn.us/a2z.html#Population%20forecasting">http://www.demography.state.mn.us/a2z.html#Population%20forecasting</a> ). The calculated load will need to be adjusted to account for differences between current and future land use compared to the 2000 footprint. In a situation where the current or future urban footprint is greater than the 2000 footprint, the required phosphorus reduction will be more than 30 percent.  Current TMDL#1 DRAFT guidance suggest using Year 2000 and projected Year 2025 population to determine the % phosphorous reduction for our MS4 community. Other methodologies are being considered in the storm water arena. The purpose of this BMP is to review all current methodologies and determine what is the appropriate “projected” phosphorous loading correction factor for the City of Willmar.
<b>*Measurable Goals:</b> Develop required “projected” phosphorous loading correction factor
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle and duration of TMDL #1 Implementation Plan
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** a – Mapping  
**Unique BMP Identification Number:** TMDL#1a-3

<b>*BMP Title:</b> MAP EXISTING BMPS AND CALCULATE PHOSPHOROUS REDUCTIONS ALREADY IN-PLACE
<b>*BMP Description:</b> Calculate reductions associated with the existing BMPs. For example, if 10% (0.1) of storm water from an MS4 is treated using wet ponds, and an average value of 50% (0.5) phosphorus removal is given to wet ponds, then wet ponds have achieved a 5% ( $0.1 \times 0.5$ ) overall reduction in phosphorus loading.  Note that in the case of BMP sequencing, reductions are not additive. For example, two BMPs in one area that work in series and each achieve a 50 percent phosphorus reduction do not provide a 100 percent phosphorus reduction.
<b>*Measurable Goals:</b> Document phosphorous reductions already in-place
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** a – Mapping  
**Unique BMP Identification Number:** TMDL#1a-4

<b>*BMP Title:</b> TRACK BMPS IN NEW DEVELOPMENT AND CALCULATE PHOSPHOROUS REDUCTIONS AS THEY OCCUR
<b>*BMP Description:</b> Track BMPs in new developments and calculate phosphorus reductions as they occur.  Note that in the case of BMP sequencing, reductions are not additive. For example, two BMPs in one area that work in series and each achieve a 50 percent phosphorus reduction do not provide a 100 percent phosphorus reduction.
<b>*Measurable Goals:</b> Track phosphorous reductions from new developments Provide on-going documentation on % overall phosphorous reduction compared to % overall phosphorous reduction needed from entire community.
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** a – Mapping  
**Unique BMP Identification Number:** TMDL#1a-5

<b>*BMP Title:</b> CORRELATE MAPPING WITH POTENTIAL WATER QUALITY MODELS
<b>*BMP Description:</b> Before initiating mapping of existing BMPs, correlate appropriate water quality modeling options that may be available to ensure mapping is effective.  Water quality models are used to simulate phosphorus loading reduction associated with different BMP implementation strategies. Models can be used to develop a scenario that achieves the 30 percent reduction. For example, models can be used to identify locations where BMPs will help achieve the greatest reductions. The Minnesota Storm Water Manual provides a list of water quality models. In general, more accurate mapping of storm water conveyances and watershed allows employment of simpler water quality modeling.
<b>*Measurable Goals:</b> Review available water quality models and develop list of consistent mapping parameters. Document mapping parameters with the level of mapping being conducted
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** b – Detailed Tools for Meeting TMDL#1  
**Unique BMP Identification Number:** TMDL#1b-1

<b>*BMP Title:</b> DETERMINE IF EXISTING BMPS CAN BE ENHANCED AND IF SO, CALCULATE BENEFIT
<b>*BMP Description:</b> Many existing structural BMPs i.e. wet ponds, dry extended detention ponds, etc. and non-structural BMPs i.e. street sweeping exist within the City of Willmar. To provide effective strategic management the City will determine if existing BMPs can be enhanced to provide additional benefit.
<b>*Measurable Goals:</b> # and type of existing BMPs % effectiveness of current BMPs % effectiveness of enhanced BMPs
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR

**TMDL #1:** b – Detailed Tools For Meeting TMDL#1

**Unique BMP Identification Number:** TMDL#1b-2

<b>*BMP Title:</b> CREATE A MENU FOR BMP SELECTION
<b>*BMP Description:</b> Develop a menu or matrix from which to select BMPs for implementation. For each BMP in this menu, consider including the information described below: <ul style="list-style-type: none"><li>• Effectiveness for reducing phosphorus. For example, the Minnesota Storm Water Manual indicates wet ponds, on average, have a phosphorus removal efficiency of 50 percent.</li><li>• Time to achieve effectiveness, maturity rate, and life expectancy.</li><li>• Maintenance requirements. Maintenance includes both structural and non-structural maintenance, and training. An example of structural maintenance is ensuring that an infiltration pond is functioning properly. An example of non-structural maintenance is maintaining a schedule for street sweeping. An example of maintenance for training is ensuring there is on-going training and certification for developers and engineers.</li><li>• Costs associated with each BMP. These include construction and maintenance costs. Consider both monetary and non-monetary costs. An example of a non-monetary cost is a storm water pond that may provide mosquito breeding habitat.</li></ul>
<b>*Measurable Goals:</b> Develop a BMP matrix of Storm Water BMP's that may be appropriate for meeting TMDL reduction requirements
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR

**TMDL #1:** b - Detailed Tools For Meeting TMDL#1

**Unique BMP Identification Number:** TMDL#1b-3

<b>*BMP Title:</b> DETERMINE IF LOW IMPACT DEVELOPMENT IS AN OPTION FOR DEVELOPMENT
<b>*BMP Description:</b> Determine if low impact development (LID) is an option in new developments and in re-development. Develop list of advantages and disadvantages
<b>*Measurable Goals:</b> List of advantages and disadvantages
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us



**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** b – Detailed Tools for Meeting TMDL#1  
**Unique BMP Identification Number:** TMDL#1b-4

<b>*BMP Title:</b> ESTABLISH A SCHEDULE FOR MONITORING, OPERATING, AND MAINTAINING “BMPS”
<b>*BMP Description:</b> Establish a schedule and legal authority for monitoring, operating, and maintaining BMPs to meet the TMDL requirement.
<b>*Measurable Goals:</b> Develop a schedule for monitoring, operating, and maintaining BMPs Develop the legal authority to monitor, operate and maintain the BMPs
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR

**TMDL #1:** b – Detailed Tools For Meeting TMDL#1

**Unique BMP Identification Number:** TMDL#1b-5

<b>*BMP Title:</b> DESCRIBE THE CURRENT PLAT REVIEW PROCESS
<b>*BMP Description:</b> Describe the current plat review process. Identity the relationships between different entities involved in the plat review process and the communication tools that exist between these different entities. Determine if changes to the plat review and building permit process, including inspections, will be needed to implement required BMPs.
<b>*Measurable Goals:</b> Review and document the current plat review process
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR  
**TMDL #1:** b – Detailed Tools For Meeting TMDL#1  
**Unique BMP Identification Number:** TMDL#1b-6

<b>*BMP Title:</b> DEVELOP CAPITAL IMPROVEMENT PLAN (CIP) TO MEET TMDL#1
<b>*BMP Description:</b> The Lower MN River TMDL Implementation Plan requires that the City of Willmar implement the required storm water runoff phosphorous reduction by Year 2025. Develop a capital improvement plan to meet these requirements and other potential impending TMDLs.
<b>*Measurable Goals:</b> Develop Proposed Capital Improvement Plan (CIP)
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us

**MS4 NAME** CITY OF WILLMAR

**TMDL #1:** b – Detailed Tools For Meeting TMDL#1

**Unique BMP Identification Number:** TMDL#1b-7

<b>*BMP Title:</b> DESCRIBE FUNDING MECHANISM
<b>*BMP Description:</b> Describe existing funding mechanisms that can be used or will be needed to implement and maintain BMPS. These include fees, taxes, escrows, capital improvement projects, and trusts. Examples include storm water utility fees assessed against monthly utility bills or, conversely, incentives to homeowners to reduce utility fees by implementing BMPs. Identify mechanisms for increasing funding.
<b>*Measurable Goals:</b> Describe existing and proposed increased funding mechanisms
<b>*Timeline/implementation Schedule:</b> Ongoing throughout duration of permit cycle.
<b>*Specific Components and Notes:</b>
<b>*Responsible Party for this BMP:</b> Name: Melvin Odens, Public Works Director Department: Public Works Phone: (320) 214-5169 E-mail: modens@ci.willmar.mn.us